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Fencing, Biosecurity and Wild Boar Politics in the Danish-German Borderland

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ABSTRACT

This paper investigates the spatial strategies of fencing and the politics of biosecurity in a European borderland setting. It considers the way in which national spaces and borders are co-produced through spatial strategies of fencing, discourses of biosecurity, and notions of the intrusive other. Based on ethnographic fieldwork in the Danish-German borderlands, the paper examines the physical and discursive creation of a (bio)security fence stretching the entire length of the border – constructed to prevent the migration of Eurasian wild boars and the spread of the highly contagious viral disease African Swine Fever. A disease that could potentially contaminate domestic farmed pigs and severely affect pork exports. Although government narratives justifying the border fence focus on external factors like African Swine Fever, the paper argues that this physical security barrier is not only a biosecurity defense against external threats, but to some also a reflection of symbolism, political imaginaries and ideas of belonging (for both humans and non-humans).

KEYWORDS: Border fencing; biosecurity; wild boar; migration; African Swine Fever; Europe

Introduction

In June 2018, Danish lawmakers authorized the construction of a 70-kilometer fence along the Danish-German border to prevent the migration of wild boars and the spread of African Swine Fever (ASF), which poses a biosecurity risk and economic threat to Danish pork exports (MEF 2018a). Work on the fence started in January 2019 in the border city of Padborg, 136 miles southwest of Copenhagen, and was completed in December the same year at a cost of about DKK 70 million, with pig farmers contributing one-third of the cost (MEF 2019; 2018b).

Denmark is one of the world's largest exporters of pork, which accounts for almost half of the country's agricultural exports, according to the Danish Agriculture and

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Food Council. There are around 3,000 pig farms in the country and pork makes up more than 5 percent of Denmark's total exports. The Danish government has warned that the country's pork exports – worth billions of Danish kroner annually – could be seriously affected by ASF, and as a consequence thousands of jobs are at stake. Denmark is the only EU country in which pigs outnumber people, and in 2020 the country exported approx 1.9 million tons of pork representing a value of DKK 35.7 billion (DAFC 2021).

The wild boar fence along the border with Germany is part of a major biosecurity initiative by the Danish government to prevent ASF from spreading to Denmark, and is defined as a so-called “overriding societal consideration” which means that extraordinary measures can be taken to manage and reduce risk. While biosecurity measures to manage risk are formally perceived as apolitical in practice, in many cases they are highly political, and are intertwined with priorities of protecting national production systems and trade, making them an instrument of governance. Building border fences separating EU member states is highly controversial, and in the Danish-German borderland sensitivities over ethnic divisions and national boundaries remain and are seemingly accentuated by the construction of the fence. For decades communities on both sides of the border have painstakingly broken down barriers. This applies to both the purely practical, which arise from different legislations and certifications, but most importantly, the mental barriers. Despite criticism from within and outside Denmark, the new fence along the border received widespread political support among the majority of Danish political parties at the time it was constructed. Nevertheless, both supporters and opponents of the fence have continued their defense and criticism of this security barrier, adding further substance to the debate about the future role of so-called intrusive and unwanted animal species in the country in order to keep the Danish agricultural sector risk free and secure. However, as argued by Collier and Lakoff,

the question is not just whether certain events (or potential events) have been characterized as ‘biosecurity’ threats that require attention; we also need to ask what kind of biosecurity problem they are seen to pose, what techniques are used to assess them, and how certain kinds of response are justified. (2008, 11)

As noticed by Smart and Smart, the increasing “securitization of governance has produced rapid growth in biosecurity discourse and practice” (2012, 360). These biosecurity discourses and practices (like various regulatory and technological fixes) help to categorize threats and place blame. For example, as we will illustrate through the Danish fencing case biosecurity practices and discourses along the border line are often used by pig farmers, environmentalists, and political parties to further particular agendas. The concept of biosecurity ramifies, depending on the type of things to be protected and the reasons for valuing them, what they are being protected from, and the specific means of separation and exclusion.

It also demonstrates how bio/social-anxieties are windows onto broader anxieties and fears heralded by wild boar – fears about the invasive “other” and clues to the political responses that are developed to counter these anxieties.

The research on the Danish border fence and biosecurity assemblages discussed in this paper are based on a total of nine months of ethnographic field research in the period between January 2021 and August 2022, conducted by the authors. We have employed a “mixed methods” approach to develop our analysis, in tracking the meaning and

role of fencing and biosecurity, in the region. This encompasses qualitative in-depth interviews, informal conversations and participant observation, triangulated with library research and secondary data collection. We began by examining government decrees, reports, and regulations related to border fencing and wild boar intrusions. These documents provided valuable insights into the official government and EU policies, illuminating the specific claims and strategies used to mobilize and legitimize fencing. Simultaneously, we studied various local actors operating in the borderland area. This involved conducting in-depth interviews with 42 individuals, including local politicians, landowners, hunters, representatives from environmental organizations, and government officials at different administrative levels. Interview participants were identified through a dual approach. Firstly, individuals who had expressed their views on the fence in public forums as well as those holding official positions were contacted. Secondly, the majority of those individuals helped refer the researchers to other relevant stakeholders within their community or network. Through these interviews, we gathered essential information concerning government perspectives and practices within the regions, as well as their intricate connections to national (bio)security policies. In addition to these methods, we actively engaged in participatory observation within border communities directly affected by the border fencing initiative. This immersive approach allowed us to collect data pertaining to the opinions, behaviors, and vulnerabilities of local residents in relation to the presence of border fencing in their communities.

The paper proceeds as follows. In the next section we will examine critical scholarly engagements with the practice and politics of biosecurity and border fencing. We then introduce the borderland context and provide an overview of the social and political dynamics of fencing along the Danish-German border. That is followed by an examination of the political and (bio)security discourses behind the fencing process and how new border regulations are understood and interpreted locally. We consider the local consequences of these regulations for communities and associations on both sides of the border and discuss how the Danish fencing strategy aligns with or differs from the proliferation of border fencing in Europe. In the final section, we discuss how the current biosecurity concerns have led to rapid central government responses which in turn have been perceived as futile and insensitive to local context and (conflict) history (Figure 1).



Figure 1. Map of the Danish-German Border Region (by the Authors).

Borders and biosecurity

By applying the concepts of border work and biosecurity as analytical starting points, this study seeks to make a contribution to ongoing discussions within the field of border studies. Specifically, it aims to investigate how contemporary concerns regarding the actual or predicted cross-border movement of non-humans (such as viruses and their animal hosts) influence and trigger border practices like fencing. The paper highlights the multiple meanings and imaginaries associated with the fencing process in the Danish-German borderlands. We further illustrate how biosecurity strategies of fencing, both figuratively and literally are employed to regulate the flow of what is considered desirable from undesirable forms of life. Our primary aim is not to study issues of “national security” *per se* but rather to highlight how political interventions and technical measures like wildlife fencing on the border are part of larger biosecurity assemblages. As noticed by Alan and Josephine Smart, “contemporary borders are being restructured in response to new practices and ideas of biosecurity” and “biosecurity has become a major factor influencing the operation of national borders and subnational boundaries.” However, despite these developments border studies have generally neglected the flows of non-human life across borders and their immediate impact on shaping borders and border dynamics (Smart and Smart 2012, 354–355). Usually, border fences are built to keep people out. Sometimes, they are built to keep people in as well, as with the Iron Curtain. A fence may also be designed to mark a border or to reinforce a territorial claim. Only in exceptional cases have border fences been intended to impede the movement of (wild or domesticated) non-human creatures (Trouwborst, Fleurke, and Dubrulle 2016, 292). While several studies have engaged with how border security regimes have impacted wildlife movement and ecology, few studies have critically engaged with the intricate links between biosecurity and border fencing in a European borderland context, or with how such processes have affected and nurtured debates about the intrusive other and exacerbated old anxieties of separation, exclusion and conflict among borderland communities. This paper thus investigates two interlinked aspects of border fencing: the fence as a biosecurity barrier, and as a metaphor for exclusion and inclusion.

The dominant focus of border studies often conceptualizes border zones as areas of pacification and regulation by the center that prompts securitized responses, exceptional forms of governance, or other efforts to assimilate borderlands into national processes and top-down governance models (Donnan and Wilson 2010; Schwenken, Russ, and Ruß-Sattar 2014; Wastl-Walter 2011). Without ignoring these aspects of power and sovereignty, a growing group of scholars have recently begun focusing on borderlands as progressive zones of economic and political innovation, where governance takes on experimental forms (Olga and Rozita 2018; Allmendinger et al. 2015; Eilenberg 2012). They draw attention to the disconnect between the political imaginations that conceptualize borders as unambiguous and linear, and the realities of border people who feel that cultural, social, and geographical spaces frequently overlap (Troschenko 2016; Orsini et al. 2019; Harrison 2021). The border is now being conceptualized as an effect of a multiplicity of agents (human or non-human) and practices (Cunningham and Scharper 2017). Such transborder spaces or borderlands are territories that acquire their defining characteristics from the border itself, and from people and nature interacting

across it (Cunningham 2012). The term “border work” has recently been employed as an analytical concept to describe this dynamic process that creates and modifies borders (Reeves 2014). Borders are complex and take on various dimensions simultaneously: material, social, technical, legal, military, cartographic and symbolic (Reeves 2016, 168). Biosecurity politics add to the complexity of dimensions that may, at various times, be aligned or maybe in tension.

On the border, the concept of biosecurity manifests variously around the risk politics of agriculture and animal disease, human health and (bio)terrorism (Falk, Wallace, and Ndoen 2011; Rychnovská 2017). According to Donaldson, from a geographical perspective biosecurity, “implies the maintenance of a spatial separation between categories of biological things: those which are valued (perhaps for economic or ethical reasons) and those which represent a possible threat to the well-being of the valued group” (Donaldson 2008, 1552). Biosecurity is thus all about making “life safe” (Hinchliffe and Bingham 2008), and is intended to “secure valued forms of life from biological risk” (Braun 2013, 45). Several works have shown that securing valued life involves attempts to monitor, regulate, contain and fence the movement of various forms of unwanted life across borders (Smart and Smart 2012; Lakoff and Collier 2008; Hinchliffe et al. 2013; Warren 2013). Such pre-emptive practices of managing the movement of agricultural diseases (for instance) have become common within the European agricultural sector, as diseases now spread at a higher speed and over longer distances due to globalization and demographic changes, leaving modern constellations of agriculture more exposed. The use of the concept of biosecurity in regard to agriculture emerged in the 1980s when preventive strategies became a key element of animal health, and the concept has since been adopted by international institutions and national governments (Enticott 2014). For instance, the FAO has implemented the concept of biosecurity as a holistic term which includes policy and regulation to protect agriculture, food and the environment from biological risk (FAO 2007).

In the Danish case, such attempts to secure agricultural spaces are often about preventing possible cross-border incursions and safeguarding national agribusiness. Several studies have shown that within the global biosecurity discourse, the politics of affect play a large role by placing the emphasis on fear of outside threats (Hinchliffe and Bingham 2008; Hinchliffe and Ward 2014). In this respect, it is important to consider how the fear of outside threats and risk management in the case of wild boars is portrayed and politicized. In this paper, we are interested in how wild boars become an element of (bio)risk on the border, and how wild boars in a Danish setting have only recently been seen as a national risk and carrier of disease. We show how managing risk and securing life is uncertain and not straightforward – but entangled in a heterogeneous assemblage of disordered connections between human and non-human agencies.

Inspired by the studies mentioned above, this paper investigates how biosecurity fencing designed to stop the migration of wild boars has affected border communities with regard to both the very tangible materiality of the border fence and the political and emotional debates about (bio)security, separation and exclusion that it has nurtured. We argue that biosecurity aspects of these kinds of border security barriers connect issues of ecology more broadly to the politics of exclusion and inclusion. The concept of biosecurity is complex, in that sometimes the life that is to be made safe is seemingly straightforward (pigs, cattle or human populations) – but often the simplicity hides

intricate questions over ways of life (kinds of economic or agricultural practice, inequalities in lifestyles between healthy and diseased). For example, in the case of the Danish border fence the perceived biosecurity threat towards the Danish pig production became a matter of national security which reduced the construction of the fence to a seemingly simple challenge of protecting livestock from invading infected wild boar. Although there was a lot of dissent and buzz about the construction of the fence, hardly anyone disagreed with the premise that it was important to combat the external risk and instigate strict biosecurity measures. But the rhetoric of the (bio)security threat posed by ASF, did hide the much more complex – and controversial – questions and discussion about whether neither agricultural nor economic practice were feasible or desirable for current and future population in the country at all. This begs the questions of who's interests and risks are eventually being protected?

African Swine Fever and wild boar politics

Let us begin answering the above question by introducing one of the main non-human factors involved in this biosecurity assemblage – the reason why the border fence was built: African Swine Fever virus. ASF is a highly contagious viral disease that is spreading rapidly across Europe and beyond. There are currently no effective vaccines for ASF, as it has a complex genetic structure and quickly adapts to the pig's immune system. Without an effective vaccine, it has proven extremely difficult to eradicate the disease from the domestic pig and wild boar population (Woźniakowski, Pejsak, and Jabłoński 2021).

The first time ASF was registered in Europe was in 1957, when it arrived in Portugal through the Portuguese colonies in Africa. However, the virus did not gain a permanent foothold in mainland Europe until 2007 after an outbreak in Georgia, where contaminated pig feed was shipped in and fed to domestic pigs. From here, it spread to neighboring countries and entered the EU through Lithuania in 2014 (Bellini et al. 2021). Since 2014 there have been several dispersed outbreaks of the virus in the EU which have predominantly affected wild boar populations (Emond, Bréda, and Denayer 2021). Cases from Poland and the Baltic states show how the virus survived in the wild boar population despite its low prevalence there. Undisposed carcasses of infected wild boars remain infectious for a long time and are a potential source of infection for healthy animals (Chenais et al. 2019). For example, the Czech Republic experienced its first incidence in 2017, when an ASF-infected wild boar carcass was found in the eastern part of the country (Broz, Arregui, and O'Mahony 2021). In the following year, Belgium was hit when the virus was detected among wild boars in the forest of Gauma. The forest areas with infected wild boars were quickly categorized as biosecurity "White Zones," and the boars were hunted and shot. The creation of White Zones is a crucial aspect of EU efforts to prevent the spread of ASF. The main purpose is to fence off areas that are infected by ASF, and to hunt down and eradicate all wild boars within this zone, thereby preventing the virus from spreading to other wild boar and domestic pig populations outside the zone. Both Belgium and the Czech Republic successfully eliminated ASF within a few years by applying this zoning strategy. Then in 2020, despite high-tech surveillance of boar movement along the German-Polish border, the first case of ASF-infected wild boar carcasses was detected in Germany close to the Polish border, with outbreaks among domestic pigs being reported subsequently. As a response, Germany placed

mobile fences along the border to Poland to prevent further boar migrations. In the German federal state of Brandenburg, a permanent border fence to Poland was constructed subsequently.

While neighboring EU countries have experienced ASF incidents, Denmark has maintained its ASF-free status. In the absence of a vaccine, biosecurity measures like fencing are seen by both the rest of the EU and the Danish government as a crucial element in preventing the introduction and spread of ASF.

There is a general debate among farmers, government and environmental groups in Denmark as to whether wild boar have a place in the Danish countryside and whether they should be reintroduced permanently. Wild boars divide people's sentiments and are seen as either a resource or a pest. On the one hand, environmental groups, nature protection organizations and hunters argue that wild boar should be allowed to re-immigrate, under careful surveillance, as they expect wild boars will increase biodiversity and create new nature and hunting experiences. However, on the other hand, the powerful Danish agricultural sector has been a strong opponent of wild boar in Denmark, not least because of the risk of wild boars being a carrier of disease. By labeling a native species like wild boars as invaders or "invasive" in the Danish landscape the Danish government together with other actors that perceive the boars as unwanted (or native invaders) justify and legitimize plans of eradication.

As stated in a report on border fencing issued by the Danish Ministry of Environment and Food in June 2018, "Wild boars in Denmark need to be exterminated, as the boar can be a carrier of African Swine Fever with very large consequences for the agricultural industry and exports" (MEF 2018a, 9). As part of the fencing strategy and the attempt to eradicate the wild boars, the Danish government and the Danish People's Party allocated DKK 123.9 million to increased efforts against ASF, about DKK 30 million of which was financed by the pork industry (MEF 2019). The government and the Danish People's Party therefore agreed to immediately launch a series of initiatives to help ensure that ASF does not spread to Denmark. Besides fencing along the German border, the initiative included measures like game cameras, public information campaigns, and almost unlimited boar hunting – day and night – on both state and private land. Although this claim was contested, the Danish Nature Agency proclaimed in June 2021 that Denmark was now free of wild boars, as they had all been hunted and shot (Kristensen 2021). Despite official statements, there are still reports of wild boar movement in Denmark. It is possible that new wild boar sightings in Denmark are the result of boars swimming from Germany to Denmark across Flensburg Fjord, but they may also have migrated across the border through one of the 20 natural openings in the wild boar fence at the border (Figure 2).

The socio-spatial dynamics of border fencing

The last few decades, post 9/11 have witnessed a proliferation of security fencing along borders across the globe, culminating in the recent, hasty construction of border fences by several European countries and the U.S.A. to stem the flow of refugees (Korte 2022; Jones 2012; Johnson and Jones 2018). However, in several instances, border fences came to play a dual role as both barriers or obstacles preventing the flow of humans and animals alike (Linnell et al. 2016; Pearce 2022). For example, in

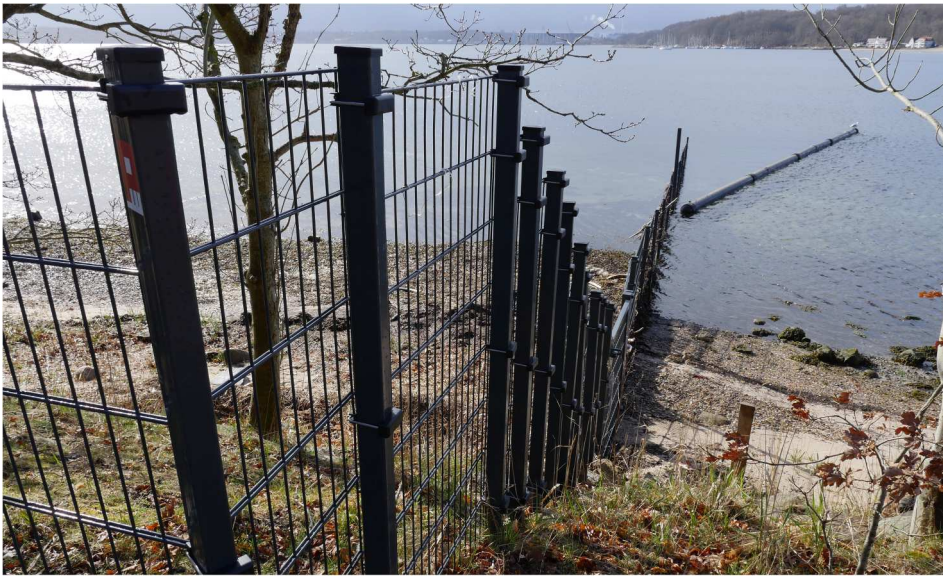


Figure 2. Fence Extending into Flensburg Fjord (by the Authors).

2015 during the so-called migration crisis, Hungary decided to build a fence along its border with Serbia (and partly Croatia) initially to prevent the flow of humans the fence also ended up splitting ecosystems apart by preventing wildlife to move freely across the border (Székely and Kotosz 2018; Korte 2022). A similar process took place the same year along the Slovenian-Croatian border where a 670 km razor-wire security fence was erected (Pokorny et al. 2017). Later in 2018 the Hungarian government erected 133 km of wire fences at the Romanian border initially to prevent the entry of wild boar and spread of ASF but the fence became simultaneously a human barrier preventing the flow of migrants (The Sofia Globe 2018). Since then several other European countries have erected border fences to prevent the flow of humans and unwanted migratory wildlife (vectors of disease) (Mysterud and Rolandsen 2019).

So at a time when walls and fences are strong and contested symbols, the Danish government conveyed a provocative and forceful message by building its own fence along the border to Germany. After all, the EU is supposed to be an open community of member states. Fencing has deep symbolic, cultural, historical, and often contested meanings. For some people, the fence is about trade and the protection of Danish pig exports, while for others it triggers emotional connotations. While some express the fear that ASF would destroy their livelihood and therefore support the fence, critics say that the construction of the fence is against EU regulations and will harm wildlife. Others argue that the fence is purely a symbolic gesture tackling a largely non-existent problem (Sorensen 2018; The Economist 2019; Christensen 2019).

In local and international media and cross-border political debates, the Danish wild boar fence was simultaneously seen as both a strong (bio)security defense and a setback for the good development of cultural exchange in the Danish-German borderland that has occurred since the Second World War, as well as constituting a contribution to the highly polarized migration debate in Denmark. The Danish-German border has

been historically contested and affected by the national orientation of the local populations (Thaler 2007), but is nowadays often highlighted as an exemplar of harmonious borderland co-existence (Schaefer-Rolffs 2014; Auge 2020). However, there is a good deal of uncertainty about the wild boar fence, which is seen as yet another symbol of isolationism following the reintroduction of passport control and border guards in 2016 during the refugee crisis in Denmark (Klatt 2020). For example, in 2015, the Danish government was considering a 33-kilometer-long barbed wire fence along the Danish-German border (unrelated to the wild boar fence that came later) to prevent a new wave of migrants from entering the country. However, the fence was never erected and the barbed wire and other materials worth DKK 21.7 million were stored at an army airbase (Knudsen 2019).

Imagery and metaphors of the intrusive other (human and non-human) have permeated the news coverage of the construction of the fence, and may, according to several critics, have a lasting impact on how we perceive ourselves and thus have real-life effects on border people (Schultheis 2019). As Kristina Korte reminds us in her work on fencing strategies along the Hungarian-Serbian border, “othering is both a condition for and a result of bordering. State boundaries, which are both material and symbolic, can be used to create the us and the Other” (Korte 2022, 456).

Denmark’s border fence has generated plenty of buzz in news media, sparking sarcastic comparisons to former President Donald Trump’s border wall between the U.S. and Mexico. For example, The Washington Post posted an article entitled, “Denmark’s far right wanted a Trump-style border barrier. It got a fence against wild boars instead” (Noack 2019), and the British newspaper The Guardian opened an article on the fence with the sentence: “The United States isn’t the only country with a border wall controversy these days,” referring to Trump’s famed Mexico Wall (Schultheis 2019). The German newspaper Die Zeit has called the fence an “iron curtain against wild boar” (Hauser 2018). And although the Danish government emphasized that the fence is merely intended to stop wild boar, politicians from the Danish People’s Party stated that the party thinks it is fine if the fence also manages to stop a few illegal immigrants (Overgaard 2018). One comment by a local deputy mayor from the same party made the headlines in Germany: he said he would have preferred a fence which was one meter higher. This comment fueled the resistance towards the construction of the fence, as it seemed to confirm the suspicion that Denmark was barricading its borders, and the fence was regarded as exclusionary (Iversen 2018; Cramon 2019). As Reece Jones reminds us,

the construction of a barrier on the border simultaneously legitimizes and intensifies other internal exclusionary practices of the sovereign state. It legitimizes exclusion by providing a material manifestation of the abstract idea of sovereignty, which brings the claim of territorial difference into being. (2012, 3)

The effort to exterminate the Danish population of wild boar by erecting a border fence to protect parts of the agricultural sector has divided sentiments among the stakeholders involved. The debate about the reintroduction of wild boars and the process of fencing has long been a contentious topic among pig farmers, environmental organizations, politicians and borderland communities, who disagree about the utility of the fence. Some of the most avid critics of the fence that we encountered were spokespersons from environmental agencies and nature activists. Their criticism focuses primarily on the fact that

constructing the fence ignores one point: the spread of ASF is due mainly to the transport of animals, people, and food products across the border – not to movements of wild boar. These critics concede that if the wild boar populations north of the German Kiel Canal become infected with swine fever, the risk of ASF spreading to Denmark may increase. But they maintain that this risk is still very small because ASF is transmitted through physical contact with a sick animal or its excretion. The Danish pig farms and the double fences around free-range pigs make physical contact between production pigs and wild boar difficult. The risk of infection from wild boar is therefore very small. Another common argument is that the fence is useless because it cannot prevent the animals from swimming across the border via Flensburg Fjord. Instead – according to critics – the construction of the barrier has caused the separation of ecosystems by destroying the wild animal habitats.

The rationale of constructing the fence along the entire border with Germany, extending to the west coast and across landscapes which have rarely (if ever) seen any wild boar, is likewise met with skepticism. The overall criticism is echoed by German nature guides across the border, who similarly share concerns for flora and fauna and express astonishment that the barrier could be built at all. A natural history museum director working in a small town on the west coast of Germany put it like this:

We were shocked when the fence was actually built. The border has once again become visible. Fences, gates ... even along the dikes and the Koog out west. How was this even made possible? To construct something like this ... straight through a protected area?¹

He is referring to the fact that the fence cuts through a Natura 2000 area which belongs to an EU-led collaborative network of protected areas that are either breeding or resting sites for rare and threatened species. This issue was also addressed by the political opposition, environmental agencies, and border populations in general when the freshly drafted law on the wild boar fence was first sent to a hearing in spring 2018.² The same issue has also been questioned by two Danish members of the EU parliament. They say that the European Commission believes that permanent fences are not an efficient protective measure against the spread of ASF in Europe, pointing out that:

Fences that cut through long stretches of natural habitat discourage the free movement of animals. They are therefore in conflict with the purpose of Natura 2000, which is precisely to create an ecological network in Europe.³

In the response, the representative of the European Commission confirms that an evaluation performed by the European Food Safety Authority did not conclude that large fencing structures were an effective measure against the spread of ASF. Pertaining to Natura 2000 areas, the Danish authorities had informed the commission that an assessment in accordance with the provisions of the Habitats Directive had been carried out, which concluded that the fence would not lead to any significant impact on the protected elements in the area.⁴

What to some has been more problematic about the fencing project, is that the ratified law on the construction of the wild boar fence, allowed the Minister for Environment and Food to deviate from several other laws⁵ and instead take it upon himself to guarantee that the construction would happen with considerations to these laws.⁶ The minister was also authorized to expropriate land and property in order to design, construct and

maintain the fence.⁷ The adopted law on the construction of the wild boar fence, granted the minister with a wide range of liberties which allowed some significant “shortcuts” in the usually rather bureaucratic – and more democratic – Danish administrative and governing systems. With regard to the pace of the implementation and the authorization granted to the Minister for Environment and Food, one government official involved in the process told us:

I’ve never been involved in anything like this before. Normally, you have a lot of time to prepare and get things in order. But here it’s done in reverse. And that tells you something about the fact that politically, people had the opinion that we needed to act on this urgently now.⁸

The sense of urgency to set up a border fence links back to the discussion on biosecurity, as unwanted animals carrying a highly contagious virus were presented as a threat and risk that would affect the entire nation – a state emergency. The Minister for Environment and Food warned the Danish Parliament that:

In the event of an outbreak of African swine fever in Denmark, all exports to third countries will be shut down. In 2016, Danish exports of pork to countries outside the EU totaled DKK 11 billion. We are therefore faced with a significant financial loss if ASF comes to Denmark, not just for pig farmers, but for society as a whole (...), which will affect many areas of business very seriously if this income is lost for an extended period of time.⁹

Several landowners along the border have been directly affected (their land has been expropriated), and they have felt that they were met with a wall of bureaucracy and a swift process that did not give them much of an opportunity to protest.¹⁰ This again links back to the governments’ sense of urgency, which has prevailed throughout the fencing process where wild boars are seen as an urgent security threat to the economic stability of the Danish state. This risk assessment is challenged by both German and Danish hunters’ associations, who claim that the threat is not imminent and argue that the fence is no match for wild boar. To them, the division of the landscape is the real problem. The obstruction of the paths of the wildlife in the area, they claim, has impacted biodiversity, the economic value of individually owned hunting grounds, and the pleasure of the hunt in general, since animals are left without an escape route as they are driven towards the fence. A local Danish landowner who had the fence placed on his property shared his frustration with us:

Our entire joy of hunting here, it’s gone. I know there’s no natural movement even 300–400 meters in that direction [points to a forested patch north of the fence]. One hardly feels like going hunting here anymore, right? Because it [the game] can’t escape in that direction, you know. There’s no freedom left, you see. It’s closed off. It’s an unfair hunt.¹¹

According to the hunting associations, the construction of the fence has shifted the balance of the wildlife population, as most of the red deer are now trapped on the German side, to the great dismay of the Danish hunters.¹² Whether this will have any impact in the long run remains to be seen, but it has provided the fence opponents with ammunition and fueled their argument that the fence does in fact inhibit wildlife, even though deer are able to jump the fence in theory. Problems associated with deer that try but fail to jump the fence have attracted substantial negative publicity, and horrid photographs of wild deer that have been impaled or lost limbs in their attempts

to cross the fence have made it to local news media and circulated in anti-fence Facebook groups. While this has caused cries of outrage on both sides of the border, the criticism and focus from the German side seems to have been more vehement. Less attention has been given to the fact that the Danish authorities reacted quickly and adjusted the design of the metal sheets in the accident-prone areas. The number of incidents has decreased significantly, although this may also be because the animals have grown accustomed to the fence.

At the regional political level, German civil servants and political agents have criticized the lack of communication regarding the projected construction. While acknowledging a country's right to protect its borders, the German mayor in one of the border municipalities directly affected by the fence complained that he had not been informed directly by the Danish authorities. He reacted by sending a political statement to the state government in Kiel (Germany), asking them to address the issue of the Danish fence (TVSyd 2018). This sentiment was shared by a coalition of German political party representatives in the border town of Flensburg who jointly outlined a motion to dismiss the construction of the fence and invited Danish decision makers to sit down for a discussion. However, no such meeting was ever held.¹³

Not only politicians have been vocal with their criticism: media reports and interviews also reveal that for many German citizens, the construction of a fence between the two countries is perceived as an exclusionary practice. Furthermore, the fence has been seen as a breach of the Schengen Agreement, the purpose of which is to gradually abolish all internal border measures, while strengthening the external borders of the EU, to enhance the free movement of people and goods. Several of our interlocutors reported that the border fence affects their desire to travel to Denmark because they interpret the fence as a sign that outsiders are unwelcome. Furthermore, the assumption that the fence is also inherently and intentionally a symbolic gesture aligned with the views of the political right has stuck with both the media and German citizens in general (Christophersen 2019; Gram 2020; Friedrichsen 2021; Stöcklin 2019).

The critical position is backed by minority populations, in particular members of the Danish minority population residing in Germany. Many people from this group report that they were questioned critically by German majority friends and neighbors and felt that they had to explain a political decision with which they did not agree. They also felt slightly ridiculed, as they were met with arguments about the uselessness of the fence implying that the fence must be about something *else* than simply biosecurity concerns. One member of the European Parliament with a Danish minority background put it like this:

You can argue that the fence doesn't hurt people. But it affects the border region on a symbolic level. It is an unwise political symbol that comes from the Danish government. We know that it doesn't work at all, at least that's what the experts say.¹⁴

A more consensual position is found amongst people living on the Danish side of the border, who generally agree that the fence is an annoying expression of top-down management which evolved in a political reality far from their everyday lives. But overall, they do believe that the fence is a necessary evil owing to the risk of ASF. Taken together, interlocutors from the farming industry, including pig farmers who have paid one-third of the cost of the fence through their industry association, naturally position

themselves as being in favor of the fence. There is a general sense that the complete elimination of the wild boar is a shame from an ecological point of view, as many farmers are also hunters. But concerns for livelihoods and sales of their produce outweigh these deliberations, and in particular, the symbolic message that the fence sends to the export market is recognized as vital. One large-scale pig farmer from south-east Jutland explains: “It is not the specific risk of the pigs becoming infected that I am afraid of, it is the fact that an infected pig will set foot on Danish soil.”¹⁵ Amongst pig farmers, there is an appreciation that their security concerns have been heard and acted upon, and that the farming industry is still influential and recognized as an important agent in Danish society and the Danish economy.¹⁶ Throughout the fencing process, the official position has been that the construction of the fence was a necessary act in the interest of society as a whole. The smooth and productive process of building the fence is highlighted, and the fence is labeled a success, while criticism is dismissed as either exaggerated, one-sided or ill-informed.

As mentioned earlier, Germany experienced that a single regional outbreak of ASF amongst wild boar caused pork prices to plummet dramatically, leading South Korea and China to ban all imports from the whole of Germany immediately. The virus had not even made its way into domestic pig pens, but the mere detection of the disease in Germany was enough to stop all imports. This extreme level of risk management by their Asian trading partners has been monitored closely by Danish producers, and may, in turn, explain the equally extreme act of constructing a border fence for biosecurity purposes. Several interlocutors say that the Danish authorities may have underestimated – and later downplayed – the consequences of the fence. While recognizing that the fence has led to emotionally charged debates, when asked whether the fence has influenced the relationship between the two countries, one representative of the Danish Nature Agency says that:

The wild boar fence has really had no effect on this. That is my best belief. I simply cannot recognize that. The construction of the fence was the right thing to do, because in this case important societal interests are above the interests of the individual.¹⁷

Conclusion

This paper has considered the ways in which the threat of African Swine Fever is perceived, accepted or rejected by the various stakeholders involved in the biosecurity assemblage relating to the wild boar fence along the Danish-German border. We have examined the multiple stakeholders (human and non-human) who have been involved directly or indirectly in the construction of this fence, and discussed the ways in which the intrusive other becomes an element of (bio)risk on the border. We show that in recent Danish history, wild boars have been seen as a national risk and carrier of disease necessitating extermination and expulsion. While wild boars have always been seen as a controversial and troublesome animal by farmers, the spread of ASF close to the Danish border has now classified wild boars as vectors of disease and consequently a national threat to economic security. While the wild boar fence was initially supposed to function as a temporary barrier dealing with an immediate problem, the global spread of ASF and the lack of an effective vaccine might convince Danish

politicians of the need to make it permanent. Not least to send a powerful signal to Denmark's pork export markets. However, as highlighted by Hinchliffe,

This potential for the rapid emergence of newly infectious diseases is aided not only by increased wild-domestic animal and human interactions, but also some argue, by the sheer mass of livestock animals that now form a key component in the resourcing of an expanding and protein-demanding human population. (Hinchliffe 2013, 199)

For example, the average Danish pig producer has grown in size over the years due to economies of scale. Structural development is moving towards increased specialization and intensive production. Pig production is concentrated in larger and more specialized farms, and more live pigs are exported both to the EU and globally. The potential crossborder spread of infectious and deadly diseases on pig farms may thus have substantial economic consequences for individual farmers and the wider national and international economic network that they sustain. It is therefore not surprising that animal health and biosecurity measures are high on government agendas as a strategic policy device. But as argued by Donaldson, "biosecurity can also be characterized as a huge socio-technical experiment" which might prompt unexpected consequences (Donaldson 2013, 62).

Whether the wild boar fence on the Danish-German border will actually succeed in keeping Denmark ASF free, despite the anthropogenic factors in the transmission of the virus, remains to be seen. However the emotional and physical consequences of this biosecurity barrier are clearly felt by both humans and non-humans in the immediate borderland. The current location of the Danish-German border is just about 100 years old. After a few decades of attempts to dissolve the practical and material realities in the Danish-German borderland such as barriers, checkpoints and border posts, the reintroduction of passport control and the erection of the wild boar fence have reintroduced the border as a very tangible reality in the everyday lives of local people. We have shown that the re-ordering of the Danish-German borderlands as a biosecurity zone has triggered local emotions and become a source of unease for national minority populations. The fence has contributed to a polarization between pig farmers and nature enthusiasts, hunters and others concerned with biodiversity and landscape. Local landowners in the borderland have been affected by the swift construction process and their limited options to protest the expropriation of their property, and consequently express a sense of distancing and disappointment with the government and political system. This estrangement vis-à-vis national politicians and decision making is a shared sentiment amongst people living near the border, who consider the fence to be an outcome of ignorant capital-based policy making which has no awareness of what it is like to live in the area affected. Although sympathetic towards agricultural policy considerations, anxieties over the stretching and tearing of the social fabric; the economic straining of communities; a heightened sense of uncertainty; and a polarization of secured and non-secured spaces, places and people at the border are all public discussions generated by the wild boar fence. Thus biosecurity measures as discussed in this paper are continuously weighed through risk assessment by both supporters and opponents of the security fence. For example, the fence will lose its meaning and function if the threat or risk of ASF affecting domestic pigs is not pressing or realistic. In a document from the Danish Ministry of Environment and Food on the fencing project it is noted that the fence is

considered a “temporary measure” and its main purpose is to keep out ASF and not part of a permanent border control measure (MEF 2018b).

While there may be a general consensus about the serious effect of what an ASF outbreak would mean to the pig farms and surrounding industries, the lack of information paired with a rushed political process and erection of the fence, accompanied by the absence of proper research and convincing evidence of the effect of the fence, has formed the debates and perpetuated criticism. As cautioned by Atchison, “making life safe or securing life anticipates risk, but this is also risky because it involves practices which interrupt necessary flows and rhythms of life” (Atchison 2015, 1700). Interruptions that might disturb hard-build efforts to reconcile decades of mistrust and anxiety on the border, on local as well as regional political levels.

This increasing focus on biosecurity reminds us that borders are not only about the movement of people and goods but also about the movement of non-human entities, such as diseases and animals. With this paper, we have attempted to highlight the need for interdisciplinary approaches that consider the intersection of environmental factors, economy, individual, and security concerns in the context of border management. Overall, the inclusion of biosecurity measures enriches the scope of border studies, making it more holistic and reflective of the complex challenges faced in an increasingly interconnected world.

Notes

1. Interview with German director of Natural History Museum, 09.07.2021.
2. Questions and answers at the hearing (AKT 3551119) regarding Proposal 228 for a law on the design and construction of a wild boar fence along the Danish-German border.
3. See inquiry/question from Members of Parliament, P-003437/2019. https://www.europarl.europa.eu/doceo/document/P-9-2019-003437_DA.html
4. See answer to inquiry/question from Members of Parliament P-003437/2019(ASW). https://www.europarl.europa.eu/doceo/document/P-9-2019-003437-ASW_DA.html#ref1
5. The Danish Nature Protection Act, the Forest Act, the Hunting and Game Management Act, the Coastal Protection Act, and the Act on the protection of diked marshlands.
6. Act on planning and construction of a wild boar fence along the Danish-German border §3. <https://www.retsinformation.dk/eli/lta/2018/694>
7. Act on the design and construction of a wild boar fence along the Danish-German border §6. <https://www.retsinformation.dk/eli/lta/2018/694>
8. Interview with member of staff, 02.11.2021.
9. Procedure during the first deliberation of the proposed law of erecting a wild boar fence held in the Danish Parliament (Time 13:04 onwards), 03.05.2018. <https://www.ft.dk/aktuelt/webtv/video/20171/salen/91.aspx?from=01-05-2018&to=01-06-2018&selectedMeetingType=Salen&committee=&as=1#player>
10. Interview with three different landowners who had experienced expropriation 26.05.21, 05.07.2021, 08.07.2021, 07.10.2021.
11. Interview with local Danish landowner who had experienced land expropriation. 07.10.2021
12. Interview with Danish and German hunter’s associations, 04.07.2021; 05.10.2021.
13. Interview with representative of Flensburg city council 05.10.2021.
14. Interview with Danish minority party EP member, 19.11.2021.
15. Interview with pig farmer, 26.08.2021.
16. Interview with pig breeder, 06.09.2021.
17. Interview with member of staff at the Danish Nature Agency, 02.11.2021

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